DEALER TEKLINE

Adviser D.N
Date 12.15.86
Julian 349.1.5

call back - a.m

Dealer Code	40 [redacted] 7150
Phone	718 [redacted] 521 [redacted] 5245
COMPLETE VIN	[redacted]
Mileage	

CANADA

Fab

RENAULT ☐ Jeep ☒ AMC ☐

Dealer S & W DODGE

Caller Bert D

Problem Description

After: 5:00 ☐
After: 6:00 ☐

Valve Cover - ordered a new valve cover, won't bolt up to head.

82 Jeep

T.I.C. 11100

Attempted Repairs/History

none.

Suggested Corrective Action

To make cover fit you must drill & tap cylinder head.

Diagnostic material available is:

☒ Adequate
☐ Deficient
Make comments below

If deficient why:

☐ Known problem no field fix
☐ Service publication deficient*
☐ Other*

000351

Comments:

Adviser LC
Date 07-01-86
Julian 1824-16

DEALER TEKLINE

Dealer Code	10 [redacted] 7979	CANADA	Dealer Thomas
Phone	912 [redacted] 226 [redacted] 7723		
COMPLETE VIN	15CCM85A5 [redacted] J064293		
Mileage	062945	Fab	
RENAULT		Jeep ✓	AMC	Caller Wayne

After: 5:00 ✓
After: 6:00

Problem Description

Valve Cover Melts by Carb on Engine

T.I.C. 1000

Attempted Repairs/History

Suggested Corrective Action

Check for Engine overheat, or loss of lube @ Valve Train.

Diagnostic material available is:

- [x] Adequate
- [ ] Deficient

Provide comments below

If deficient why:

- [ ] Known problem no field fix
- [ ] Service publication deficient*
- [ ] Other*

000352

Comments:

Adviser LC
Date 07-11-86
Julian 1924-8

DEALER TEKLINE

Dealer Code: 21 [redacted] 4515 | CANADA
Phone: 406 [redacted] 727 [redacted] 9200
COMPLETE VIN: 1ACCC3851 [redacted] K16 8205
Mileage: 40000
Fab

RENAULT | Jeep ☐ | AMC ✔

Dealer Rice MTRS

Caller Terry

Problem Description

After: 5:00 ☐
After: 6:00 ☐

Valve cover leak oil

T.I.C. 1114

Attempted Repairs/History

vehicle has been in 3 times For leak

Suggested Corrective Action

Instructed Tech To Perform Is note 46E in MR 171 Manual

Diagnostic material available is:

☒ Adequate
☐ Deficient

Provide comments below

If deficient why:

☐ Known problem no field fix
☐ Service publication deficient*
☐ Other*

Comments:

000353

IntraCompany Correspondence

To:	Location:	Copy To:
Mr. R. J. Beauchamp		Messrs.: T. H. Best W. Chaldekas R. W. French R. I. George R. J. Green H. A. Johnson R. J. Laniewicz J. K. Nemeth J. A. Seidl W. D. Smiley
From:	Location-Ext:	
J. A. Hamann	Materials Engineering/ AMTEK/32620	
Subject:	Date:	
RTV Gasket - Nylon Valve Covers.	April 22, 1980	

In the course of development work on the nylon valve cover used for lightweight engines, we evaluated formed-in-place gasket materials. Almost immediately, "gasket in a tube",service part number 8993317, was suspected as being deficient. G.E. was contacted and upon reviewing our data, concurred with our position. Samples from each carton on hand in the tool crib have been checked and some were found to be bad. All were found to be out of shelf life.

Current Status:

1. RTV formed-in-place gasketing, as currently released for plastic valve covers, is a viable sealing system. Adhesion to both nylon and steel is excellent.

2. Those valve cover leaks which have shown up in the test program recently are most likely due to deficient material. The record should show that all leakers were engines which had been retrofit at AMTEK. Materials Engineering knows of no leaks on engines as originally assembled in Kenosha using bulk material.

3. The problem of deficient material in the tool crib has been resolved. Materials Engineering has arranged with the local G.E. representative for fresh material to be furnished to the crib (at no cost) on a regular basis. The crib has been advised to discard its current stock. This applies not only to the valve cover but to any sealing job on "D" fleet vehicles where "gasket in the tube" is used.

4. G.E. has been requested to review this problem with National Service Parts in Milwaukee.

5. Shelf life recommendations as printed on all packages is one year at temperatures not to exceed 80°F. Each tube is date coded on the crimp. The first two letters on year and month. The 1980 year is "K". Months begin with A for January and run through M. The letter I has been deleted from the system.

J. A. Hamann

YEAR	MONTH
H-78	A- Jan
J-79	B- FEB
K-80	C-MAR
A-81	D- APRIL
	M- DECEMBER

/js

0001355A

IntraCompany Correspondence

To:	Location:	Copy To:
J. Y. Vourc'h	Amtek - 33647	F. Bunting A. DeBates D. Hittler J. Lisabeth R. Reuter
From:	**Location — Ext:**	
R. J. Green	Amtek 32659	
Subject:	**Date:**	
Valve Cover Sealing (G.E.)	October 31, 1984	

Russ Tanton of G. E. was in to discuss sealing of the valve cover October 29, 1984. The following information was obtained.

- Olds and Pontiac are continuing with RTV.
- Buick, Chevrolet and Cadillac are going with molded silicon gaskets.
- No one else they know of is using plastic covers although covers and oil pans have been used in production. His opinion is that some people will be reconsidering it in lieu of the die cast costs.
- Both Olds and Pontiac are using some controlled depth at the bolts to maintain .020 or .030 thickness of RTV. (1673 passes P.S.I. in 10 minutes)
- With this controlled depth they recommend the RTV seal on two parallel planes (no steps, grooves, etc. to shear the RTV).
- Some steel covers have a few dimples in between bolts to keep the cover from contacting the head between two bolts (maintain the RTV thickness).
- We use 1473 RTV in plant currently.

  The 1673 which they also recommend and we had tried earlier this year with total failure is being used by Pontiac. It skims over very fast so the cover must be installed quickly (not good for service type installations due to time to install). Also less viscous than 1473. 2 more
- Temperature cycling test on an engine is the best test method (soak at 20°F and run engine for 200 temperature cycles). Most joints fail in 15 to 20 cycles if they are going to fail.
- Some use pressure test head and cover assembly temperature cycled in place of the whole engine.

0003355

- Precured VIP 1443 was also presented. This is heat cured at 350° to 400°F on the cover and looks like an "O" ring permanently bonded to the cover. It is an approach similar to the SWS precured RTV we are testing. They recommend a controlled gap for this material also (.040 on our four cylinder cover). Pontiac is planning on this material on a steel cover for field service.

- The suggested program which we plan to proceed with is as follows:

Six Cylinder

A. Test 1473 RTV with flat faced covers (ground off) and with inserts installed to control the RTV to .020 thickness.

B. Test the current cover with flush inserts and a precured bead of 1443.

Four Cylinder

A. Test 1473 on a modified cover which has a flat face (except for the drip rail and inserts which will control the RTV thickness to .020.

B. Same cover construction but with precured 1443 VIP and inserts to control the compression to .040 gap.

We will proceed with sample covers for testing.

R. J. Green

2086R

RJG/kar

IntraCompany Correspondence

To: List

Location:

Copy To: *W. Chaldekas
*R. J. Green
J. A. Hamann
*D. Hittler
*J. C. Lisabeth
*E. Schindler
*W. D. Smiley
O. J. Viergutz
*J. O. Vourc'h

From: L. C. Ang

Location: Ext. AMTEK/35148

Subject: Back-up Material for Plastic Valve Covers.

Date: February 14, 1985

*Present at Meeting

It was suggested by D. Hittler at the February 5th meeting of the plastic valve covers that a back-up material be found for the 940 Rynite (PET) being developed to replace Vydyne (mineral filled nylon).

Ryton R-7, a glass and mineral filled polyphenylene sulfide compound, is being considered. R-7 has a flexural modulus of 2,400,000 psi and heat deflection temperature of 500°F. The following actions will be taken:

1. Test on compatibility with suggested SWS silicone sealant, T400. Bond strength of the sealant to both untreated and "Corona discharge" treated Ryton R-7 placques was excellent.

2. W. Chaldkeas is coordinating the purchase and delivery of a Ryton R-7 shipment to Evart and Jo-Ad for molding trials.

3. 4.2L 6-cylinder valve cover will be molded in production tools at Evart.

4. 3.9L 6-cylinder valve cover will be molded at Jo-Ad with the prototype Kirksite tool.

5. Advanced Material Application personnel will cover the moldings tentatively scheduled for the week of February 25th, pending the arrival of Ryton resin to Evart.

6. Molded parts will be post cured at AMTEK in the Plastic Lab's oven and evaluated.

L. C. Ang

/js

006357

IntraCompany Correspondence

To:	Location:	Copy To:
R. J. Green	Amtek	D. Hittler J. Lisabeth R. Reuter
From:	**Location — Ext:**	J.Y. Vourc'h
C. Miller	Amtek	
Subject:	**Date:**	
VALVE COVER OIL LEAKAGE STUDY; SUMMARY	March 13, 1985	

Various changes have been made to the existing I-6 & I-4 valve covers to compensate for oil leaks and associated problems.

One of the first changes in the I-6 cover was an addition of washers to the bolts. This was done in hope of eliminating a torque loss problem. Torque loss is a severe problem since the covers lost an average of half of the specified torque over a short period of time. Two types of washers were evaluated: flat stainless steel washers and spring washers. Although both of these seem to hold the torque for a short period, the long-term effect did show torque loss. This occurred even when initial torque was elevated to 70 in-lb$_f$.

The washers did not solve the torque loss problem, but they helped define the problem. Since the bolts continued to lose torque, but did not rotate, it was determined the cause of loss of torque was due to cold flow of the plastic valve cover. To assist in resolving this problem, another change implemented was a metal insert applied to the bolt holes. This was tested for an extended amount of time with positive results; the average torque stayed very close to the initial torque (70 in-lb$_f$).

Another problem with the I-6 cover was warpage at the flange between bolt holes. A production cover with pre-formed RTV (silicone rubber) was thermal tested. After the first cycle, the bolts lost 49.8% of the initial torque; 56% after this final cycle. Also, after 3 hot-cold cycles, the cover warped considerably between the bolt holes on the right (spark plug) side of the cover.

In order to counteract this warpage, a more rigid material, Rynite 940 cover was molded for the I-6 and I-4 engine. Valve cover oil leakage Study The Rynite I-4 cover was tested with a pre-formed bead of RTV and also with metal inserts in the bolt holes, creating a .020 inch gap. A similar arrangement for the production cover was made and these two covers were thermal cycled (5 cycles: -40°F 300°F). Results showed torque remained

the same throughout all cycles for the Rynite cover and during the 4th cycle, a loss of 1.5% occurred for the production I-6 cover. Also, the final cover to head distance was greater for the production cover by 80%.

Besides thermal testing of the Rynite cover, a few I-4 and I-6 covers were molded and tested on fleet and lease vehicles. Tested covers included metal inserts in the bolt holes providing .020 inch gap and on the I-6, shims were placed on the left side to create the same depth. A preformed bead of RTV was used as a sealant.

In general, results show practically no torque loss, although most of the covers did develop oil leaks. This was due to the slightly out of print covers which resulted from problems in manufacturing the new material covers.

Production tools have been used to mold a limited number of valve covers in Rynite. After being inspected for dimensional stability, these covers will be tested on selected fleet and lease vehicles. These covers will also have spacers, pre-cured RTV and shims (I-6 only).

A thorough examination of these vehicles will determine whether the above stated methods will eliminate the oil leakage problem of AMC I-6 and I-4 valve covers.

C. Miller

C. Miller

2321R/0082R/8S
CM/fw

IntraCompany Correspondence

To: J. Waterworth

Location: Amtek

Copy To: R. J. Green
R. G. Kurowski
R. H. Reuter
C. P. Theodore

From: W. J. Robertz

Location — Ext: Amtek

Subject: 4.2L Production Engine Rocker Arm Cover

Date: July 11, 1986

The rocker arm covers on eight production engines EBU, received from Kenosha were evaluated for leaks and fastener torques. Each engine was pressureized to 5PSI and checked for leaks with "snoop"; none were found. Fastener torque to tighten torques were taken and recorded. The 7/16-14 retainers nuts were torqued to 35 ft/lbs in production, the torque to tighten of these retainers ranged from 30-35 ft/lbs. The 1/4-20 shoulder bolts were torqued to 55 in/lbs in production and their torque to tighten ranged from 70-110 in/lbs.

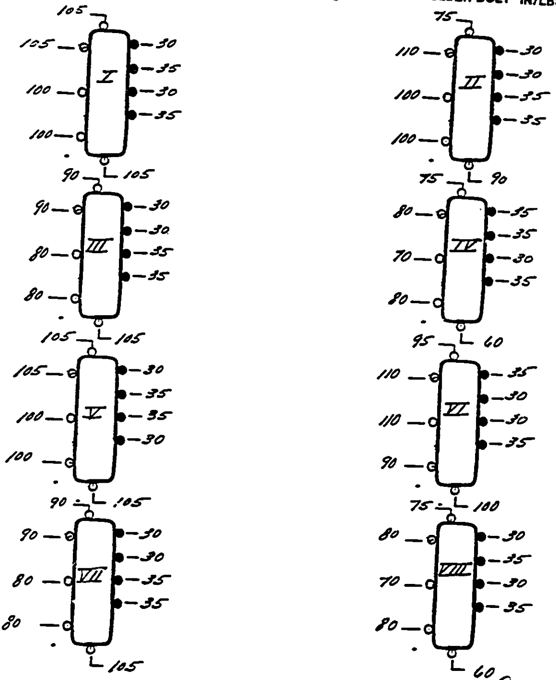
W. J. Robertz

3889C/dma

0003360

TORQUE TO TIGHTEN

● 7/16-14 RETAINER NUT FT/LBS ○ 1/4-20 SHOULDER BOLT IN/LBS



FRONT
▼

000361

Fyle

IntraCompany Correspondence

To: E. H. Reuter

Location: AMTEX

Copy To: C. P. Theodore, R. J. Green, R. C. Kurowski, J. Waterworth

From: W. J. Robertz

Location — Ext: AMTEX

Subject: Rynite Valve Cover Status

Date: July 21 1986

This report summarizes the status of the Rynite valve cover fleet through July 21, 1986.

W. J. Robertz

WJR/va
Attachments
3797C/0033C

000362

ame	Usage	Displ.	MY	Date Checked	Mileage at Check/Hr.	Remarks
. L. Lisabeth	General Service	4.2L	81-Concord	7/14/86	3997	No visual leaks * (o)
. I. Goldon	General Service	4.2L	81-Spirit	6/11/86	4320	No visual leaks * (o)
. L. Bramblett	General Service	4.2L	81-Concord	6/11/86	3131	No visual leaks * (o)
. Mallett	General Service	4.2L	81-Concord	7/15/86	4076	No visual leaks * (o)
. Tozer	General Service	4.2L	81-Concord	7/11/86	9000	No visual leaks * (o)
. Sheppard	General Service	4.2L	81-Concord	7/14/86	1750	No visual leaks *
E. J. Stoecker	General Service	4.2L	82-Eagle	6/3/86	7000	No visual leaks
. L. Knoespel	General Service	4.2L	82-SX4	7/15/86		Installed new cover * (o)
M. T. Flood	General Service	4.2L	82-Concord	6/10/86	3759	No visual leaks
. Mojtan	General Service	4.2L	82-Concord	7/15/86	3763	No visual leaks * (o)
. Cowsert	General Service	4.2L	82-Spirit	6/10/86	3759	No visual leaks * (o)
. Federoff	General Service	4.2L	82-Concord	6/3/86	2732	No visual leaks
. Madoud	General Service	4.2L	82-Concord	6/6/86		New cover installation
. Gentner	General Service	4.2L	82-Concord	7/8/86		New cover installation
. Trate	Genral Service	4.2L	82-Concord	7/8/86		New cover installation
. ter	General Service	4.2L	82-Concord	7/3/86		New cover installation
. mons	General Service	4.2L	83-Eagle	6/12/86	1238	No visual leaks (No longer in service)
. F. Bargende	General Service	4.2L	86-Eagle	7/10/86	8700	No visual leaks (No longer in service)
D. Underhill	General Service	4.2L	85-GM	7/14/86	13100	No visual leaks
. Morgan	General Service	4.2L	85-GM	7/16/86	4000	No visual leaks
. Sereker	General Service	4.2L	85-GM	5/22/86	2371	No visual leaks
no DSG 014	General Service	4.2L	85-GM	6/3/86	2857	No visual leaks (No longer in service)
Dyno DSG 016	General Service	4.2L	85-GM	6/3/86	3391	No visual leaks (No longer in service)
. Zonca	General Service	4.2L	85-Eagle	6/3/86	—	Vehicle no longer in service
G. Dall Garage	General Service	4.2L	86-GM	6/4/86	2400	No visual leaks
H. E. Wolfe	General Service	4.2L	86-GM	4/23/86	3550	No visual leaks (No longer in service)
. Hesse	General Service	4.2L	86-GM	4/26/86	7800	No visual leaks (No longer in service)
. Kent	General Service	4.2L	86-GM	7/1/86	6000	No visual leaks (No longer in service)
. ley	General Service	4.2L	86-GM	4/24/86	10,300	No visual leaks (No longer in service)
J. Sullivan	General Service	4.2L	86-GM	5/20/86	6000	No visual leaks (No longer in service)
. Wissercuth	General Service	4.2L	86-GM	7/16/86	5000	No visual leaks
G. Wildberger	General Service	4.2L	86-GM	7/16/86	7000	No visual leaks

Name	Usage	Displ.	MY	Date Checked	Mileage at Check/Hr.	Remarks
Dyno D4C-026	Durability	2.46L	86-XJ	7/14/86	39,935	No visual leaks (No longer in service)
SC-009	Durability	2.46L	86-XJ	7/14/86	91,000	No visual leaks (No longer in service)
Dyno D4C-064	Durability	2.46L	86-XJ	7/14/86	30,000	No visual leaks (No longer in service)
Dyno D6C-015	Durability	2.46L	86-XJ	7/14/86	28,430	No visual leaks (No longer in service)
Dyno-GP-1	Durability	2.46L	86	7/11/86	2285.4 Hrs.	No visual leaks (No longer on test)
Dyno-GP-2	Durability	2.46L	86	7/11/86	1763 Hrs.	No visual leaks (No longer on test)
Dyno-GP-3	Durability	2.46L	86	7/11/86	1260 Hrs.	No visual leaks (No longer on test)

* No bolt hold down holes on the ends
** PCV grommet hole dimension over size on proto covers causing seepage
(O) Modified cover
(A) Original cover was cracked at installation

5796C/0033C
MJR/va

Memorandum

To:	Location:	Copy To:
P. H. Reuter	Amtek	R. J. Green R. G. Kurowski J. Waterworth C. P. Theodore
From:	Location — Ext:	
W. J. Robertz	Amtek/3-3395	
Subject:	Date:	
RYNITE VALVE COVER STATUS	December 19, 1986	

This report summarizes the status of the Rynite valve cover fleet through December 12, 1986. The sixteen 1985/1986 PEP lease vehicles are now all turned in and are no longer available for evaluation. These sixteen vehicles, with a combined accumulation of 90,463 miles, did not show any visual signs of oil leaks. The seventeen 1981/1984 vehicles had a combine accumulation of 143,513 miles, with the exception of one vehicle there have been no leaks. A very small percent of the 1981 vehicles will and do have a slight weapage at the ends of the rocker cover. This occurs due to the fact that on this model year there are no holes drilled and tapped in the ends of the cylinder head for fasteners. This weapage, that causes dampness, has not created a problem.

W. J. Robertz

WJB/ncw
0278C

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I.S.

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3E

MAY 1986
ENGLISH EDITION

1986 AMC EAGLE
1986 JEEP GRAND WAGONEER/TRUCK
1987 WRANGLER

ENGINES

Attention: Workshop, Parts Department

4.2LITER REVISED CYLINDER HEAD COVER

Starting in April, 1986 all 4.2L (258 cu. in.) engines will be equipped with a new cylinder head cover, PN 8933 003 691.

The new cylinder head cover comes equipped with a pre-cured RTV seal. The new cover is reusable as long as the sealer and/or cover are not damaged during cylinder head cover removal/installation.

Follow the procedure below for proper cylinder head cover removal/installation.

PROCEDURE

Removal

1. Disconnect the battery negative cable.
2. Remove the air cleaner assembly and the PCV molded hose.
3. Disconnect the distributor vacuum advance hose at the distributor.
4. Disconnect the fuel line at the fuel pump. Rotate the line as necessary to provide clearance for removal of the cylinder head cover.
5. Remove the PCV valve from the grommet in the cover. Disconnect the PCV shut-off valve vacuum hose.
6. Remove the vacuum switch and bracket assembly from the cover.
7. Remove all necessary vacuum and air hoses to provide clearance for removal of the cover.

NOTE: Identify and tag the hoses for installation reference.

8. Remove the cylinder head cover retaining nuts and bolts.

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9. Lift and tilt the cylinder head cover toward the passenger side and remove the cover.

Inspect the cover for cracks and the sealer for cracks and/or damage that may have occurred during removal. Replace the cover if it is cracked or damaged in any way.

NOTE: Small cracks in the sealer are allowed and can be repaired by applying RTV sealer to the cracked area before cylinder head cover installation.

Installation

1. If a replacement cover is being installed, transfer the PCV valve grommets and oil filler cap from the original cover.

2. Clean the cover and cylinder head sealing surface using a clean, dry cloth.

3. Install the cover, shoulder bolts and retaining nuts.

4. Tighten the shoulder bolts and retaining nuts to 5.5 to 8.0 N·m (50 to 70 in. lbs.) torque.

5. Connect the fuel line and distributor vacuum advance hose.

6. Install the vacuum switch and bracket assembly on the cover.

7. Reposition and/or connect all the air and vacuum hoses that were moved for cover removal clearance.

8. Connect the PCV valve and the PCV shut-off valve hoses.

9. Install the air cleaner assembly and hoses.

10. Connect the battery negative cable.

11. Check the engine oil level and add if necessary.

FILING INSTRUCTIONS

Record this I.S. Note in M.R. 251 page B-133, M.R. 253 page B-59, M.R. 279 page B-118 and file it in MOT. 4.2.

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I.S.

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46E

MAY 1986
ENGLISH EDITION

1981½-1986 AMC/JEEP WITH 4.2L (258 cu. in.) ENGINE

ENGINES

Attention: Workshop, Parts Department

4.2 LITER REVISED CYLINDER HEAD COVER

A new cylinder head cover kit PN 8983 503 343 has been released for service use on 1981½ to 1986 AMC/JEEP vehicles equipped with a 4.2L (258 cu. in.) engine.

1981½-1983 vehicles will require that the cylinder head be drilled and tapped for a 1/4" x 20 threaded insert. Obtain locally a Helicoil, Time-Sert or equivalent threaded insert kit.

NOTE: 1981½ models can be identified by having cylinder head cover retaining screws located at the front and rear of the cylinder head.

The new cylinder head cover comes equipped with a pre-cured RTV seal and is secured to the cylinder head with special shoulder bolts, and unique retaining nuts.

Follow the procedure included in the cylinder head cover kit.

PARTS INFORMATION

DESCRIPTION	QUANTITY	PART NUMBER
Kit, Cylinder Head Cover	1	8983 503 343
Contents:		
Cover, Cylinder Head	1	
Bolt, Shoulder	4	
Bolt, Shoulder, Short	1	
Bolt, 7/16	2	
Bolt, Stud-1/2	1	
Bridge	2	
Nut, Retainer	4	
Helicoil 1/4 x 20	3	
Installation Sheet	1	

8980 001 052

SRT/TIC INFORMATION

OPERATION DESCRIPTION	NUMBER	TIME	TIC
Co. Kit, Cylinder Head Cover-Install			
1981½-1983 models	0117	1.7 hrs.	1-141
1983-1986 models	0113	1.3 hrs.	1-141

FILING INSTRUCTIONS

Record this I.S. Note in M.R. 251 page B-133, M.R. 252 page B-125, M.R. 253 page B-59 and file it in M.R. 171.

LTV Missiles and Electronics Group
AM General Division

April 24, 1987

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Ken W. Schang
Director Vehicle Environmental
and Safety
American Motors Corporation
14250 Plymouth Road
Detroit, MI 48232

Dear Mr. Schang:

During the years 1984-85 AM General built 5,645 FJ-8C 1/2-ton postal vans which were subsequently leased to the U. S. Postal Service by American Motors Leasing Corp. under the terms of contract GS-00S-64456. These vehicles were equipped with 6 cylinder, 258 cubic inch engines purchased from AMC.

In the past 2 1/2 years, the U.S.P.S. has reported 75 instances of engine compartment fires. The fires appear to be originating in the area of the carburetor/manifold. In some instances, the damage is quite severe, destroying the vacuum hoses, valve covers and melting the carburetor. Although there have not been any personal injuries, the U.S.P.S. Office of Fleet Management feels that this is an inordinate number of fires.

Apparently the alleged defect involves an inherent flaw in the design of the engine. We are informed that a like problem has been experienced with the Jeep product line. AMG engineering has repeatedly attempted to get AMC Vehicle Safety Enforcement involved - to no avail.

Since American Motors Leasing Corporation is the prime contractor, your cooperation is necessary in order to get to the root of the problem and resolve this issue to the satisfaction of all concerned.

Due to the potentially serious nature of this matter, we would appreciate an immediate reply.

Sincerely,

LTV Missiles and Electronics Group
AM General Division

A. W. MacDonald
Director Logistics Operations

GOC 371

041:fa

American Motors Corporation
Vehicle Environmental and Safety Affairs
14250 Plymouth Road
Detroit, Michigan 48232
(313) 493-3046

April 27, 1987

COPY

Mr. Phillip W. Davis, Director
Office of Defects Investigation
Enforcement
National Highway Traffic Safety
Administration
400 Seventh Street, S.W.
Washington, D. C. 20590

Reference: PE87-024

Dear Mr. Davis:

This communication confirms our discussions at a meeting with you and your staff on April 8, 1987, and also responds to your March 30, 1987, letter (PE87-024) regarding alleged engine compartment fires in model FJ-8C 1/2-ton delivery van vehicles manufactured by AM General, a division of LTV Aerospace and Defense Company.

We reviewed this matter and found that the engine location relative to the firewall and the material composition and routing of the vacuum harness in the AM General vehicles are significantly different from the American Motors Corporation (AMC) vehicles equipped with the 258 CID 6-cylinder engine. As agreed, this, in addition to the information recently provided to NHTSA by AM General on this issue, precludes the need for AMC to submit the data requested in your March 30, 1987 letter.

Sincerely,

James A. Carlson

James A. Carlson, Director
Vehicle Safety and Health
Regulatory Affairs

cc: Mr. Richard Reed, NHTSA

bcc: K. I. Gluckman
J. J. Podorsek
M. W. Stucky
NHTSA Chron

JJP/au

4363v

000372

PRELIMINARY

MEMO TO FILE

ISSUE: NHTSA's March 30, 1987, letter, PE87-024
Alleged Fires in 1984 AM General 1/2-Ton Post Office Vehicles

CHRON:

- AMC received NHTSA's March 30, 1987 letter on April 2, 1987. The scope of the inquiry involves all 1984-1987 AMC vehicles equipped with the 258 CID, 6-cylinder engine which was also used in the 1/2-ton postal vehicles, model FJ-8C.

- On April 3, 1987 Mr. Mallett met with D. Weiher, AM General, Livonia, Michigan, to discuss AM General's March 30, 1987 campaign of 5,645 model FJ-8C 1/2-ton delivery vans equipped with the 258 CID, 6-cylinder engine supplied by AMC. The purpose of the campaign is to correct and re-route the vacuum harness assembly so it will not come in contact with the engine exhaust manifold and eventually catch on fire. Mr. Weiher provided copies of AM General's campaign information and response to P. Davis, NHTSA.

- On April 10, 1987, Messrs. Mallett and Podorsek visited AM General Livonia, Michigan, to meet with G. derPlibosian and to inspect an FJ-8C 1/2-ton van equipped with the 258 CID, 6-cylinder engine. It appeared that the vacuum hose assembly was not routed the same way as 1987 AMC Eagle equipped with a 258 CID, 6-cylinder engine (see photographs). Also, the hose material was different between the Eagle and the FJ-8C (i.e. plastic for Eagle and rubber for the postal van).

- On April 23, 1987, Messrs. T. Cheema, AMC Engine Engineer and J. Podorsek visited AM General, Livonia, Michigan, to meet with M. Kunz and to re-inspect the FJ-8C vehicle. Mr. Cheema confirmed the differences between the AMC and AM General vehicles (see attachment).

- On April 28, 1987, AMC received from LTV, Mr. MacDonald's, April 24, 1987 letter regarding an alleged inherent flaw in the design of the engine and his apparent awareness of a like problem allegedly in Jeep vehicles with the same 6-cylinder engine.

J. J. Podorsek
May 4, 1987

4420v/au

J. TOMOTSER,

SUB. 25E C.I.D Post Office vehicle

As we discussed earlier today I am confirming the differences between our own released vacuum harnesses and A.M General's veh. that we saw this morning

1- Location of dash panel extension is such that 90% of the vac. harness has been rerouted and repackaged by A.M. Gen

2- The Rubber tubes supplier 'EMCO' is not an approved source to A.M.C

3- Vac. harnesses were not tied down as are required in our veh

Specifically, there were four vac. tubes which were routed by A.M Gen., such that going behind the engine and drooping over the manifolds. Where our tubes are routed over the front of the engine to avoid the manifolds

I'll find enclosed herewith info. The process sheets will be forwarded to you as soon as they become available

Tahir S. Cheema
33622
4-23-'87

0003274

American Motors Corporation
Vehicle Environmental and Safety Affairs
14250 Plymouth Road
Detroit, Michigan 48232
(313) 493-3046

May 11, 1987

Mr. A. W. MacDonald, Director
Logistics Operations
LTV Missiles and Electronics Group
AM General Division
701 West Chippewa Avenue
South Bend, Indiana 46680-2841

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dear Mr. MacDonald:

This communication responds to your April 24, 1987 letter regarding the design of the 6-cylinder. 258 CID engine, manufactured by American Motors Corporation (AMC). These engines were sold for use in the 1984 AM General 1/2-ton, Model FJ-8C, delivery vans. In your letter you indicate that some of these vans have experienced engine compartment fires and you assert that there is an inherent flaw in the design of this engine. Also, you indicate you were informed that " a like problem (emphasis added) has been experienced with the Jeep product line." which also uses the 258 CID, 6-cylinder engine.

Please be advised that we are not aware of any design flaws inherent in the engines sold for use in the 1984 AM General 1/2-ton, Model FJ-8C, delivery vans. Moreover, Jeep vehicles equipped with the 258 CID, 6-cylinder engine have not experienced the engine compartment fire problem identified for the 1984 AM General 1/2-ton, Model FJ-8C, delivery van.

In March 1987, AM General Division of LTV Aerospace and Defense Company, informed NHTSA of a voluntary campaign of 5,645, 1984 AM General 1/2-ton, Model FJ-8C, delivery vans equipped with the 258 CID, 6-cylinder engine. AM General determined that if the vacuum harness assembly hoses in the engine compartment of these vehicles become loose or fall off, they could come in contact with the exhaust manifold and could result in a fire.

We have investigated this matter and found that the engine compartment design of the 1984 Model FJ-3C delivery van is completely different than that used in Jeep vehicles. The routing of the vacuum harness assembly in Jeep vehicles equipped with the 258 CID, 6-cylinder engine differs substantially from the routing used in the 1984 Model FJ-8C delivery van. In Jeep vehicles, the vacuum harness assembly is routed over the engine and is appropriately secured to avoid hose contact with the engine intake and exhaust manifolds.

Further. we found that AM General sourced the hoses in the harness assembly to a vendor which is not used by AMC for such parts. Finally, we found that the routing and the securing of the vacuum harness assembly used in the 1984 Model FJ-8C delivery van was designed, developed and implemented into production by AM General and not by AMC.

SAFETY IS A SNAP

In summary, AMC has found nothing to support the existence of an alleged inherent design flaw in the 258 CID, 6-cylinder engine. As noted above, there are major differences in the engine vacuum harness assembly configurations used in Jeep vehicles and in 1984 AM General 1/2-ton, Model FJ-8C, delivery vans. Jeep products have not experienced the engine compartment fire problem identified for the AM General Model FJ-8C. Further, based on the vacuum harness design utilized in our Jeep vehicles, we do not expect that such a problem could develop.

AMC believes that the action by AM General to campaign 1984 AM General 1/2-ton, Model FJ-8C, delivery vans because of the defect they identified was appropriate. The nature of the defect which precipitated this campaign involves decisions made by AM General in the design, sourcing and assembly of the vacuum harness, and not an inherent flaw in the design of the 258 CID, 6-cylinder engine.

Sincerely,

James A. Carlson

James A. Carlson, Director
Vehicle, Safety and Health
Regulatory Affairs

cc: R. Houtman, Assistant General Counsel

JJP/au

4417v

bcc: G. De::P: :bcs..a:
R. M. Johnson
G. A. Maddox
F. I Masten
L. F. Miller
H. R. Sandler
G. W Scharbach
D. P. Weiher

Missiles and Electronics Group
AM General Division

August 25, 1987

MR. James A. Carlson, Director
Vehicle, Safety and Health
Regulatory Affairs
14250 Plymouth Road
Detroit, MI 48232

Dear Mr. Carlson:

This is in further reference to my letter of April 24, 1987 concerning engine compartment fires on USPS FJ-8C vehicles and your reply of May 11, 1987.

The USPS is continuing to experience engine compartment fires on their FJ-8C fleet. Over 95 fires have been recorded to date. These vehicles contain the 6-cylinder, 258 CID engine manufactured by American Motors Corp. (AMC) which was dressed with emission hoses by AM General. Extensive research, testing and evaluation has been conducted by our Product Engineering Department to determine the exact cause of these fires. The following chronology defines these activities:

March 14, 1987	- Steel fuel feed line provided to USPS at AMG expense - Retrofit Program has been completed.
December 3, 1986	- AMG Product Engineering released rework instructions to Field Service Department for rerouting of vacuum hoses.
February 6, 1987	- USPS received technical bulletin from AMG Field Service Department describing the rework and rerouting of vacuum hoses.
February 26, 1987	- USPS issued a formal complaint to Mr. Phillip Davis, Office of Defects Investigation of NHTSA, concerning FJ-8C engine compartment fires.
March 24, 1987	- AM General Safety Committee determined that a safety related defect existed requiring notification to NHTSA.
March 30, 1987	- Notification letters of safety related defect sent to NHTSA and USPS. NHTSA assigned Campaign #87V-041.
April 2, 1987	- A notice from NHTSA was received by Mr. D. P. Weiher of AM General Product Assurance informing us that a defect investigation was in progress.

000377

Apr. 2, 1987 - Letter sent to Mr. Richard Reed of the Office of Defects Investigation explaining that AM General is conducting Campaign #87V-041 to retrofit all suspect vehicles. Per telecon with Mr. Reed and Mr. D. P. Weiher this satisfies their letter of request for information dated April 2, 1987.

April 10, 1987 - USPS Field Modification Bulletin #VMO-05-87 issued to correct vacuum hoses on all FJ-8C vehicles.

Subsequently, we received additional reports of engine compartment fires after the vacuum hose rework and rerouting was performed. These incidents were directly related to excessive oil on/or about the plastic valve cover. Our field history of fire incidents cite several cases where excessive oil was noticed after the fires. However, most vehicle fires destroyed such evidence. It is our field service experience that the old AMC plastic valve cover P/N 8933002393 does warp due to exposure to engine heat and that warpage results in leakage of engine oil onto the cover and related adjacent components, hoses and hardware.

We are well aware, that a extensive change was made by AMC on securing this plastic valve cover to the cylinder block. Since heat exposure is to be expected for valve covers and since oil leakage due to valve cover warpage is an undesirable design characteristic, we feel it is incumbent for us to advise you of NHTSA's awareness of this campaign so that any future unfavorable publicity directed toward the AMC Division of Chrysler Corporation can be avoided.

Therefore, we are requesting AMC to supply a quantity of 5,645 new improved 10-fastener mounted valve cover kits P/N 8983503343 on a "no charge" basis to AMG's Field Service Department, South Bend, IN for use in conjunction with Campaign #87V-041.

AMG is confident that Mr. Iacocca's commitment "We just want to be the best" is in harmony with this request.

Sincerely,

LTV Missiles & Electronics Group
AM General Division

A. W. MacDonald
Director Logistics Operations

Copy furnished: Mr. L. Iacocca, Chief Executive Officer
Chrysler Corporation, Detroit, MI

Mr. Paul Rosenak, USPS, Washington D.C.

000378

UNITED STATES POSTAL SERVICE
Delivery Services Department
475 L'Enfant Plaza, SW
Washington, DC 20260-7200

September 21, 1987

Mr. Frank Henderson
Director, Government Vehicle
Sales - Washington
1100 Connecticut Avenue, N.W.
Washington, DC 20036-4104

Dear Mr. Henderson:

In accordance to your recent telecon with Paul Rosenak of my staff, we have enclosed a copy of the letter written by LTV Missiles and Electronics Group, AM General Division regarding the excessive number of engine compartment fires experienced by the Postal Service.

Any assistance you can provide to resolve this issue will be greatly appreciated. Should additional information be required, please contact Mr. Rosenak.

Sincerely,

Robert K. St. Francis
Director, Office of Fleet Management

Enclosure

CHRYSLER CORPORATION

October 6, 1987

Mr. Robert K. St. Francis
Director, Office of Fleet
Management
U.S. Postal Service
475 L'Enfant Plaza, SW, Rm. 7217
Washington, D.C. 20260

Dear Bob:

In reference to your letter of September 21st, I had the opportunity to discuss the engine compartment fires experienced by the U.S. Postal Service with our people in Detroit during my visit last week.

The opinion rendered was that the engine fire problem was the responsibility of AM General rather than AMC as the FJ-8C was originally purchased from AM General.

On the other hand, matters involving AMC and your vehicles should be addressed to this office as we now have the responsibility for American Motors' products.

Please advise any time we may be of assistance.

Sincerely,

F. R. Henderson
Director, Government and
Military Vehicle Sales

Enclosure

FRH:pfa

bcc: H.L. Barton
J.V. Tracy

RECEIVED
OCT 8 1987
J. V. TRACY

000380

[illegible]

CONTACT REPT. OF USPS 11-10-87 & 11-11-87 — 11-11-87

PROBLEM: ENGINE COMPARTMENT FIRES ON U.S. POSTAL SERVICE FSSC VEHICLES (½ TON DELIVERY VAN - MANUF. BY AM GENERAL WITH 258 6 cyl ENGINE BY AMC)

POPULATION: APPROX. 100 ENGINE FIRES OUT OF TOTAL NATIONAL FLEET OF 5645.

OPERATING MODE: HEAVY STOP AND GO DRIVING WITH FREQUENT ENGINE ON-OFF'S. SOME ROUTES REQUIRE 500 TO 800 STARTS PER DAY. IF DELIVERY DICTATES CARRIER MUST LEAVE VAN ENGINE MUST BE TURNED OFF.

MAINT. HISTORY: 230 VEHICLE MAINTENANCE FACILITIES HANDLE WIDE RANGE OF MOST OF THE REPAIR WORK. REPAIRS ARE CONTRACTED OUT WHERE ECONOMICAL IN AREAS NOT HAVING FACILITY. PREVENTIVE MAINTENANCE IS PERFORMED EVERY 6 MONTHS. IN BETWEEN INTERVALS REPAIRS ARE PERFORMED AS NEEDED.

USPS TESTING:

- 1 VEHICLE WAS INSTRUMENTED WITH 10 THERMOCOUPLES AND A METAL FRAME W/PLEXIGLASS PANEL DOG HOUSED. A HOLE WAS DRILLED IN TOP OF DOG HOUSE UNDER A METAL TUBE WAS INSERTED SO OIL WOULD DRIP ON THE #4 EXHAUST RUNNER. VEHICLE WAS THEN PUT ON A DYNAMOMETER TO SIMULATE VARIOUS DRIVING CONDITIONS

- WORST CASE OPERATING MODE WAS USED (45 MPH STEADY STATE / 8500 GVW / UP 3 TO 4% GRADE). EXHAUST MANIFOLD STARTED GLOWING IN CENTER AND WORKED OUT TO ENDS OF MANIFOLD WITHIN APPROX. 10-15 MINUTES. APPROX. ½ TEASPOON OF OIL WAS PUT ON MANIFOLD, AFTER ENGINE WAS TURNED OFF. OIL IGNITED AND CONTINUED TO BURN EXTINGUISHER WAS USED TO PUT FIRE OUT AND OIL RETURNED SEVERAL TIMES

ILLEGIBLE

DOC:381

USPS TEST-CONT': • 2nd TEST MODE WAS STOP AND GO DRIVE CYCLE. ENGINE WAS TURNED OFF AND OIL IGNITED AND CONTINUED TO BURN. FIRE WAS EXTINGUISHED AND DID NOT REIGNITE

• ROAD TESTED VEHICLE IN STOP AND GO DRIVE CYCLE. OIL IGNITED ON MANIFOLD WHILE ENGINE AT IDLE. (FIRST TIME W/ENG. RUNNING) - ADDED MORE OIL SO = 1 DROP / 15 SECOND RATE AND DROVE VEHICLE ONLY SMOKE OCCURRED. TURNED ENGINE OFF AND OIL IGNITED.

CAUSE OF FIRES: AFTER REVIEWING ALL USPS DATA, I CONCLUDED CAUSE OF FIRES COULD BE BROKEN INTO FOUR CATEGORIES AS FOLLOWS: (BASED ONLY ON CASES W/ PHOTO'S OR SOME TECHNICAL DESCRIPTION OF DAMAGE).

32 - OIL LEAK FROM VALVE COVER IGNITING ON EXHAUST MANIFOLD USUALLY NEXT TO OR JUST REAR OF CARBURETOR. NONE #— RUNNING?

8 - WIRING SHORTS FROM MANIFOLD HEATER / HORN CIRCUIT

5 - FUEL LEAKS AT FILTER RETURN ELBOW TO NYLON RETURN TUBE CONNECTION. (NOTED 39 ADDITIONAL REPORTS OF FUEL LEAKS W/O FIRE. IE 12% @ 1 VEHICLE MAINTENANCE FACILITY).

2 VACUUM HOSE IN CONTACT W/ MANIFOLD.

47 TOTAL

RECOMMENDATION: SINCE ACTION HAD ALREADY BEEN TAKEN ON THE LAST 3 CAUSES, THE ONLY REMAINING ISSUE IS THE VALVE COVER OIL LEAK. THIS ITEM ACCOUNTED FOR 68% OF THE ABOVE TOTAL (47). FLEET SHOULD BE RETROFITTED W/ NEW VALVE COVER KIT.

35 J22P
LCC(B)
Valve Cover

Field Product Report

AMC/Jeep/RENAULT
American Motors Sales Corporation

T.I. and Supplier Codes
1 – 1 4 3

Complete Vehicle Identification Number	Sequence/Fabrication No.	Month/Year Built
1JCBC7567FT027257	J138371	9/84

Mileage	Zone/Dealer Code	Date	Submitted By (Print Name)
13485	03879999	6/25/85	YAKUBOSKY

Condition: ENGINE OIL LEAK – VALVE COVER AREA

Cause: POOR FIT – GASKET ON OIL FILLER CAP

Correction: REPLACE CAP

Retain the last copy. Mail first three copies intact to: American Motors Corporation Service Reliability; 14250 Plymouth Rd., Detroit, Mich. 48232 AM-3814 Rev. 6/83

000384

'84 Jeep
18 (N)

Field Product Report

T.I. and Supplier Codes: J-141

Complete Vehicle Identification Number	Sequence/Fabrication No.	Month/Year Built
1JCMJ15NOET064637		1/84

Mileage	Zone/Dealer Code	Date	Submitted By (Print Name)
40200	23-7690	7/12/84	B.R. White

Condition: VC (Gasket) Leaking

Cause: —

Correction: Re-Seal Valve Cover

Retain bottom copy, mail top copy to American Motors Corporation Service Reliability: 14250 Plymouth Rd., Detroit, Mich. 48232

AM 3614 Rev 9-83

0006385

85 Jeep
8 (N)
Valve Cover

Field Product Report

T.I. and Supplier Codes: 1-137

Complete Vehicle Identification Number: 1JTCWJ1SW3FT149912

Sequence/Fabrication No.:

Month/Year Built: /

Mileage: 75338

Zone/Dealer Code: 025-0W78

Date: 11/16/86

Submitted By (Print Name): A J Graham

Condition: AIL LEAK AT ENGINE

Cause: VALVE COVER GASKET HEARTING

Correction: RESEALED COVER

Retain bottom copy; mail top copy to American Motors Corporation Service Reliability; 14250 Plymouth Rd., Detroit, Mich. 48232

AM 3614 Rev. 9-83

000386

IC 26

DEALER TEKLINE

Adviser RJ

Date 2-13-86

Julian

Dealer Code	4 2 2 3 0 6
Phone	
COMPLETE VIN	
Mileage	50000
Fab	
RENAULT	
Jeep	
AMC	

Dealer W. Va

Caller

Problem Description

258

79 Jeep 4 cyl rocker cover gasket sucked in

T.I.C. 1000

Attempted Repairs/History

Suggested Corrective Action

went thru std gasket procedure

Dealer called back	☐	Advice given was:		4. Canada call	☐
Follow up call	☐	1. Adequate as published	☐	5. From MNPDC	☐
To Region	☐	2. Published but deficient	☐	6. From Loc. PDC	☐
Referred from Region	☐	3. Not published	☑	7. From Quality Analysis	☐

Comments:

0003

DEALER TEKLINE

Adviser: RS
Date: 6-9
Julian:

Dealer Code	26 3446	CANADA	
Phone			
COMPLETE VIN	80 Eagle		
Mileage		Fab	
RENAULT		Jeep	AMC

Dealer: Grace

Caller:

Problemblem Description

After: 5:00 ☐
After: 6:00 ☐

valve cover leaking

T.I.C. 1000

Attempted Repairs/History

Suggested Corrective Action

use adhesive primer.

use studs instead of hold down screws

pull out of shop + leave out for 8 hours

Diagnostic material available is:

☑ Adequate

☐ Deficient

Provide comments below

If deficient why:

☐ Known problem no field fix

☐ Service publication deficient*

☐ Other*

000388

Comments:

4-36
39

DEALER TEKLINE

Adviser R.S
Date 2-27-86
Julian

Dealer Code (16 7 5 4 7)
one
COMPLETE VIN
Mileage
Fab
RENAULT Jeep AMC
Dealer Royal Oak
Caller

Problem Description

'80 Concord 3276706 Leaks at cap (valve cover)

T.I.C. 1771

Attempted Repairs/History

Suggested Corrective Action

Use later type cap- should have gasket under it.

aler called back
ow up call
Region
rom Region

Advice given was:
1. Adequate as published
2. Published but deficient
3. Not published
4. Canada call
5. From MNPDC
6. From Loc. PDC
7. From Quality Analysis

P00389

omments:

VI

TYPE: Warranty Litigation
NAME: Bettie Campbell v. AMSC et al
COURT: District Court; Santa Fe City, Santa Fe, NM
VEHICLE: 1980 AMC Eagle; AVC385C256368
SERVICE DATE: 12/28/83
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Douglas Newberry
COURT: N/A
VEHICLE: 1980 AMC Eagle; AVC365C204404
SERVICE DATE: 03/01/83
DESCRIPTION: Owner alleges oil leaks at head gasket cover.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Tommy Brenton v. Jeep Corporation et al
COURT: District Court; Union City; Farmerville, LA
VEHICLE: 1981 Jeep CJ-7; 1JCCM87E9BT004534
SERVICE DATE: 09/23/81
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Small Claims
NAME: Charles E. Burke v. AMSC
COURT: Small Claims; Westchester City; White Plains, NY
VEHICLE: 1981 AMC Eagle; 2CCCG3953BB700482
SERVICE DATE: 09/21/84
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Paul Czwalina v. AMSC et al
COURT: Common Pleas Court; Luzerne City; Wilkes-Barre, PA
VEHICLE: 1981 AMC Eagle; 1ACCC3552BK156797
SERVICE DATE: 03/02/82
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Pamela Jenkins v. AMC et al
COURT: Common Pleas Court, Richland City; Columbia, SC
VEHICLE: 1981 AMC Spirit; 1AMCC4350BK100264
SERVICE DATE: 03/22/82
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Robert Masson v. AMC et al
COURT: Superior Court; Tompkins City; Ithaca, NY
VEHICLE: 1981 AMC Eagle; 1ACCG5359BK112640
SERVICE DATE: 12/05/83
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Donald Miller v. Jeep Corporation et al
COURT: Common Pleas Court; Luzerne City; Wilkes-Barre, PA
VEHICLE: 1981 Jeep J-10; 1JTCM26N4BT031476
SERVICE DATE: 11/09/81
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Dan Rapak v. AMC et al
COURT: Superior Court; Mercer City, Trenton, NJ
VEHICLE: 1981 AMC Eagle; 1ACCG3658BK154376
SERVICE DATE: 10/12/84
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Product Litigation
NAME: James Stewart v. AMC et al
COURT: Circuit Court; Dune City; Madison, WI
VEHICLE: 1981 AMC Concord; 1AMCA0854BK100579
SERVICE DATE: 07/26/83
DESCRIPTION: Owner alleges engine oil leak was repaired at an AMC dealership and subsequent fire damage resulted.
ANALYSIS: No injuries reported.

TYPE: Warranty Litigation
NAME: Calvan Leasing AMC et al
COURT: Superior Court; San Francisco County, San Francisco, CA
VEHICLE: 1982 Jeep CJ-5; 1JCCM85E3CT044273
SERVICE DATE: 11/03/83
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: P. Jean Hall v. AMC et al
COURT: Circuit Court; Floyd County; Prestonsbury, KY
VEHICLE: 1982 Jeep J-10; 1JTCM25N8CT045268
SERVICE DATE: 08/16/83
DESCRIPTION: Owner alleges engine oil leaks

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: GMAC v. AMC et al
COURT: Circuit Court; Lelanau City, Lelanau, MI
VEHICLE: 1983 Jeep Wagoneer; 1JCCJ15N5DT052173
SERVICE DATE: 12/12/83
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Pasieczny v. AMC et al
COURT: Circuit Court; Wayne City; Monroe, MI
VEHICLE: 1983 AMC Eagle; 1ACCN5357dk121572
SERVICE DATE: 06/03/85
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: David Burum v. AMC et al
COURT: Superior Court, Kern City; Bakersfield, CA
VEHICLE: 1984 Jeep Wagoneer: 1JCUC7551ET005833
SERVICE DATE: 01/23/84
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Donald L. Curry v. AMSC
COURT: City Court; Lubbock City; Lubbock, TX
VEHICLE: 1984 Jeep CJ-7: 1JCUM87A8ET053522
SERVICE DATE: 02/26/86
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: John H. Hughes v. AMC et al
COURT: Superior Court; San Diego City; San Diego, CA
VEHICLE: 1984 Jeep CJ-8; 1JCUL7826ET046606
SERVICE DATE: 05/01/84
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Philip Kendall v. AMC et al
COURT: N/A
VEHICLE: 1984 Jeep Cherokee; 1JCUL7723ET000670
SERVICE DATE: 01/02/85
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Stephen Marcus v. AMC et al
COURT: District Court; Worcester City; Westborough, MA
VEHICLE: 1984 Jeep CJ-7; 1JCCM87E7ET134591
SERVICE DATE: 09/18/85
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Warranty Litigation
NAME: Catherine Norman v. AMC et al
COURT: District Court; Union City; Farmville, LA
VEHICLE: 1984 Jeep CJ-7; 1JCCM87E9ET050353
SERVICE DATE: 12/06/84
DESCRIPTION: Owner alleges valve cover leakage.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Subrogation
NAME: State Farm Mutual Insurance Co. v. AMC et al
COURT: District Court; Rapid City; Alexandria, LA
VEHICLE: 1984 Jeep CJ-7; 1JCUM87A3ET095256
SERVICE DATE: 07/16/86
DESCRIPTION: Owner had vehicle serviced for alleged oil leak. After repair, fire ensued.
ANALYSIS: No injuries reported.

TYPE: Warranty Litigation
NAME: Tidewater Utilities v. Jeep
COURT: Superior Court; Mercer City; Trenton, NJ
VEHICLE: 1984 Jeep Grand Wagoneer 1JCCJ15N7ET070841
SERVICE DATE: 10/10/84
DESCRIPTION: Owner alleges engine oil leaks.

ANALYSIS: This is a warranty related issue.
No fire or injury reported.

TYPE: Subrogation
NAME: United Farm Bureau Mutual Ins. Co. v. AMC et al
COURT: Circuit Court; Koscinsko City; Warsaw, IN
VEHICLE: 1984 AMC Eagle; 2CCCK3857EB701167
SERVICE DATE: 06/28/85
DESCRIPTION: Owner alleges fire caused by engine oil leaks.

ANA No injuries reported.

006:395

...n Motors Sales Corporation
WA... ...TY INVOICE — REPAIR ORDER

BWJ 309 353-68. 85 CJ-7 X 4312 1

24 4398 4300

ALASKA MOTORS
1148 CUSHMAN
FAIRBANKS AK 99701
110186 C

07.10.1 020281 Wendall Warren
4170 6 Spruce
Ft Wainwright Ak

5800 1JCCF87E9FT143238

03303 1063 031586

031187 X 12/12

A 3205331	1	Rear main seal	2^{10}	2^{23}	2^{23}	7/ 1026494 Unknown Engine oil leak (PARTS WARRANTY) (Defective Rear Main Seal) — A 1818 1.6 72.00
A 4158770	1	oil pan gskt	2^{53}	3^{22}	3^{22}	
B 8983503383	1	Valve cover set	20^{42}	27^{15}	27^{15}	7/ 1143 Engine oil leak. Co. Cover Cyl. Head... or replace Cracked New Style Valve Cover ... Replaced Valve Cover — B 1282 1.5 67.50
~~B ...~~	~~1~~	~~Chrome~~	~~2~~	~~3~~	~~3~~	

OK 11,0E
NC, Q

T1040

6.44	72.00	78.44
30.85	67.50	98.35
37.29	139.50	176.79

000338

Brenda Andro 5/13/87 Wendall Warren By Bt. 5/13/87

STATUS ACCEPTED WARRANTY INVL 12412

MICROFILM A967904 INPUT DT 05/04/87 VIN JCCFB7EXF1182629 IN SERVICE DT 06/03/86 COPS IN SERV DT 06/03/86
DEALER 05081 INPUT TIME 10:38 MODEL 87FC REPAIR DT 04/27/87 SELLING DLR SAME Y
INVOICE NO 12412 REPAIR ORDER 6075546 FAB MILEAGE 11514 PAINT O
RESUB INVOICE COPS INVOICE DT 08/29/85

INCIDENT A FAPV MESSAGE: 9000 OK TO PAY NO ADJUSTMENTS
INC TEXT: OIL LEAK IN ENGINE
WARR TYPE: 12 EXPENSE CD: 71 INC CD: 1143 SUPP CD:

OPER CD: 1282 OPER TEXT: REPLACE VALVE COVER HRS: 01.5 AMOUNT: 51.00
0015 ADJUST ROCKER ARMS 00.5 17.00

PART NO: 8983503343 PART TEXT: VALVE COVER QTY: 01 AMOUNT: 27.26

INCIDENT A TOTAL 95.26

TOTAL INVOICE AMOUNT 95.26

6860000

MICROFILM A967904

[redacted] C[redacted] [redacted] [redacted] [redacted] [redacted] 5434

WAR[redacted]TY INVOICE — REPAIR ORDER

HHH-477 1871-3779 56 7/87 [redacted] (Call)

Claim number: 18105

James Dezendorf
P.O. Box 767
Kihei Hi
61XX

1JCCF87A6FT054322

08330 063086

DEALER

DEALER INFORMATION. CLAIMS, WHICH ARE NOT ... WILL BE RETURNED TO DEALERSHIP

36 0465 3830

CUTTER A J R MAUI
1945 MAIN ST
WAILUKU MAUI HI

In service date: 061587

Part No.	Qty	Part Description	Unit Price	Amount	Labor Op	Condition / Correction	Labor Type	Time	Amount
19-13-503-342	1	Cover	37.45	40.89	1113	Engine Oil Leak 4th time. Install H/O Valve Cover	A 1282	1.5	48.45
~~5031~~	~~1~~	~~Carb Cleaner~~	~~4.13~~	~~See 4.13~~ supplier					
						Re install loose wires hanging under dash on 113			

ILLEGIBLE

000400

	Parts	Labor	Total
A	40.89	48.45	89.34
B			
C			
Grand	40.89	48.45	89.34

Dealer signature: 7/1/87

Customer signature

WARRANTY DEPT. COPY